

**2022 Illinois
Pregnancy Risk Assessment
Monitoring System (PRAMS)**

**Immunization Program
Detailed Data Tables**

Illinois PRAMS Immunization Practices 2022

The Illinois Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing, population-based survey of women who delivered live-born infants in Illinois. It is part of a national initiative of the Centers for Disease Control and Prevention (CDC) to reduce infant morbidity and mortality. More Illinois PRAMS information and detailed data are available at <https://dph.illinois.gov/data-statistics/pregnancy-risk-assessment-monitoring-system.html>.

In 2022, 1,925 women were selected to participate in the study; 948 women completed the survey. Data were weighted and represent Illinois residents, age 14 years or older, who gave birth in Illinois to live infants.* (Source: Illinois 2022 Analysis Weights report and Illinois 2022 Final Report)

The following are narrative descriptions and detailed data tables for immunization behaviors among recent mothers in Illinois. Results from the COVID-19 vaccine supplement are not provided, as it was only active during the calendar year 2021. Statistically significant differences are identified by non-overlapping 95% confidence intervals. Rates with confidence interval half-widths >10% are not included in the narrative due to potential unreliability.

Health Behaviors

- In 2022, 57.8% of women who visited a health care worker to prepare for pregnancy were advised to have their vaccinations updated before pregnancy. (Table 1)
- The 2022 socio-demographic data show no significant differences in being advised to have vaccines updated before pregnancy based on maternal age, race/ethnicity, education, birth weight, WIC participation, or insurance coverage type. (Table 1)
- Comparing 2017 and 2022 there was a non-significant upward trend in the rates of women who a health care worker advised during a pre-pregnancy health care visit to update vaccinations before pregnancy. The non-significant increase went from 51.7% (2017), 55.1% (2018), 48.9% (2019), 53.1% (2020), 54.4% (2021) to 57.8% (2022). (Table 4)

Influenza Vaccination

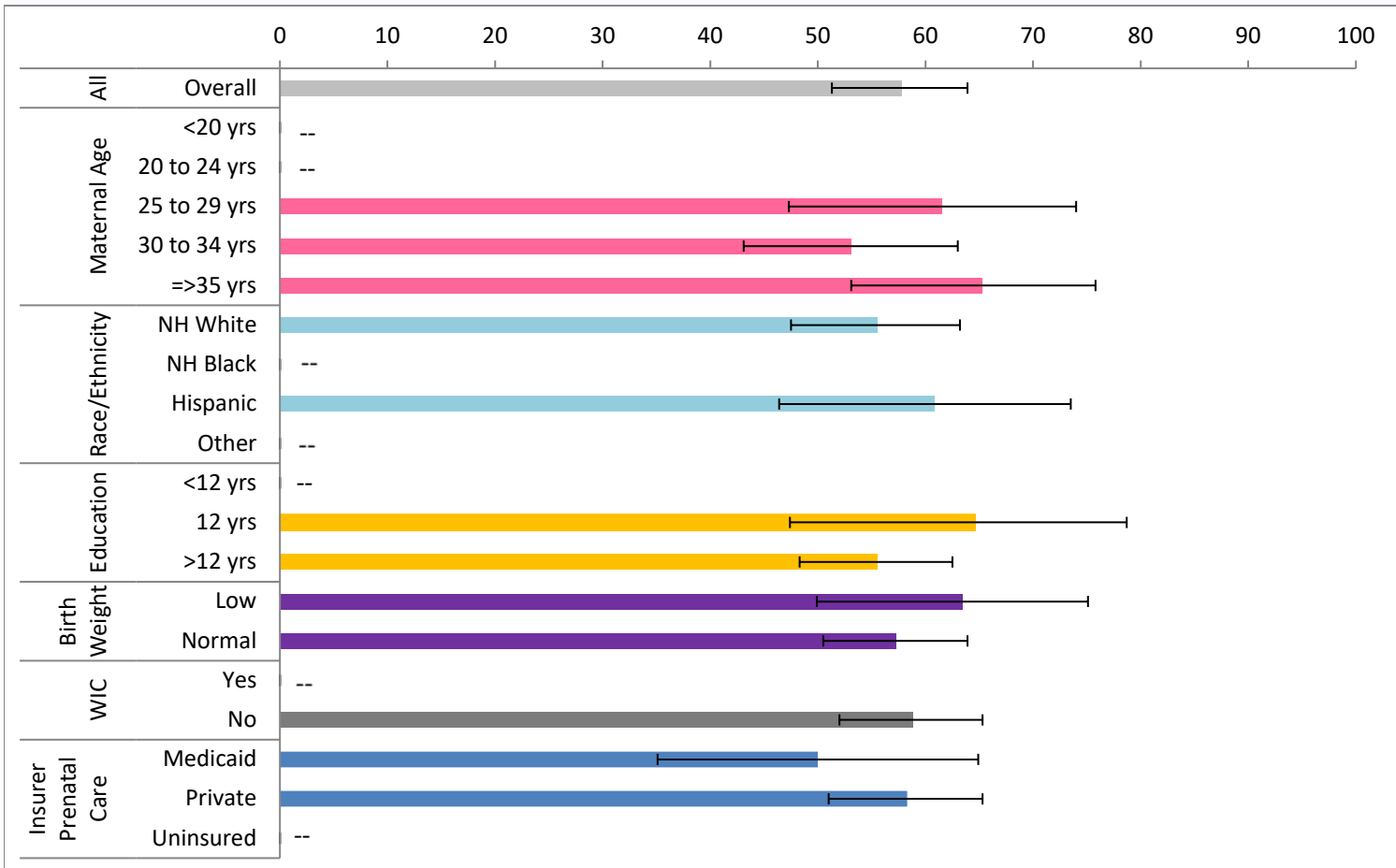
- In 2022, during the 12 months before delivery, 85.4% of recent mothers were offered a flu shot by a doctor, nurse, or other health care worker. (Table 2)
- Women aged 20-24 years and 25-29 years were significantly less likely to get a flu shot (71.3% and 79.1%, respectively) compared to women aged 30-34 years (92.8%) and women aged 35 or older (91.3%). (Table 2)
- Non-Hispanic Black women were significantly less likely to be offered a flu shot (77.6%) compared to non-Hispanic White women (89.0%).
- Women with a high school education were significantly less likely to be offered a flu shot (77.2%) than women with more than a high school education (88.1%). (Table 2)
- Women with Medicaid insurance for prenatal care were significantly less likely to be offered a flu shot (81.0%) than women privately insured for prenatal care (90.1%). (Table 2)
- Comparing 2017 to 2022, there is a slight decrease in the rate of women reporting they were offered a flu shot by a doctor, nurse, or other health care worker 12 months before delivery (86.3% and 85.4%). (Table 5)
- Comparing 2017-2018 and 2020-2022 to 2019, the year with the highest rate, there is a significant increase in the rate of women reporting they were offered a flu shot by a doctor,

- nurse, or other health care worker in the 12 months before delivery (86.3%, 87.5%, 83.3%, 85.4%, and 89.5%, respectively). (Table 5)
- In 2022, during the 12 months before delivery, 56.4% of women received a flu shot before or during their pregnancy. (Table 3)
 - Women aged 20-24 years and 25-29 years were significantly less likely to get a flu shot (45.1% and 48.0%) compared to women aged 30-34 years (61.8%) and women aged 35 or older (66.0%). (Table 3)
 - Non-Hispanic Black women were significantly less likely to receive a flu shot in the 12 months before delivery (33.2%) compared to non-Hispanic White (58.4%), Hispanic (61.9%), and Other race (78.4%) women. (Table 3)
 - Comparing 2016 through 2020, flu immunization rates among non-Hispanic Blacks decreased (42.9% to 35.2%, respectively) while immunization rates significantly increased among non-Hispanic Whites (60.0% to 69.8%, respectively) and Hispanics (51.6% to 67.2%, respectively). However, in 2021 and 2022, flu immunization rates decreased to rates lower than in 2016 among non-Hispanic White (59.9% and 58.4%) and non-Hispanic Black (33.6% and 33.2%) women. The rate in Hispanic women decreased in 2021 (53.0%) but somewhat rebounded in 2022 (61.9%), but not up to 2020 levels. (Source: Previous immunization program annual PRAMS reports)
 - Women with a high school education (44.3%) were significantly less likely to receive a flu shot than women with more than a high school education (60.9%). (Table 3)
 - Women with Medicaid insurance for prenatal care were significantly less likely to receive a flu shot (41.2%) than women privately insured for prenatal care (69.0%). (Table 3)
 - While marital status is not in the graph, women who did not indicate they were married (Other) were significantly less likely to receive a flu shot (41.4%) compared to married women (66.6%). (Table 3)
 - Comparing 2017 to 2020, there is an increase in the overall rate of women receiving a flu shot in the 12 months before delivery (58.3% and 64.6%, respectively). However, a significant decline was seen in both 2021 and 2022 where 54.6% and 56.4% of women received a flu shot in the 12 months before delivery compared to 2020 (64.6%). (Table 6)

*In 2022, the 49.2% unweighted response rate (48.9% weighted response rate) is below the 50% rate that CDC PRAMS regards as the epidemiologically valid threshold.

Table 1 **2022 Phase 8 Illinois PRAMS Data**
Health Behaviors
Percentage (%) of recent mothers in Illinois who reported that during a health care visit a health care worker talked to them about getting vaccinated in preparation for a pregnancy
Among women reporting that before pregnancy a health care worker talked to them about preparing for pregnancy

Survey Question 11: Before you got pregnant with your new baby, did a doctor, nurse, or other health care worker talk with you about any of the things listed below about preparing for a pregnancy? 11a. Getting my vaccines updated before pregnancy. Response: Yes



	Percentage ¹	95% CI ²		Respondents ³	Estimated Population Affected ⁴	
All	Overall	57.8	51.3	63.9	280	20,419
Maternal Age	<20 yrs	--	--	--	--	--
	20 to 24 yrs	--	--	--	--	--
	25 to 29 yrs	61.5	47.3	74.0	57	4,610
	30 to 34 yrs	53.1	43.1	63.0	112	7,321
	=>35 yrs	65.3	53.1	75.8	83	6,448
Race/Ethnicity	NH White	55.5	47.5	63.2	182	12,281
	NH Black	--	--	--	--	--
	Hispanic	60.8	46.4	73.5	55	4,732
	Other	--	--	--	--	--
Education	<12 yrs	--	--	--	--	--
	12 yrs	64.6	47.4	78.7	40	3,737
	>12 yrs	55.5	48.3	62.5	221	14,922
Birth Weight	Low	63.4	49.9	75.1	72	1,589
	Normal	57.3	50.5	63.9	208	18,830
WIC	Yes	--	--	--	--	--
	No	58.8	52.0	65.3	249	18,295
Insurer Prenatal Care	Medicaid	50.0	35.1	64.9	47	3,605
	Private	58.3	51.0	65.3	215	15,087
	Uninsured	--	--	--	--	--

¹Percentage = Weighted percentage

²CI = Confidence interval lower/upper bounds

-- Indicates denominator <30 respondents or numerator <6 respondents

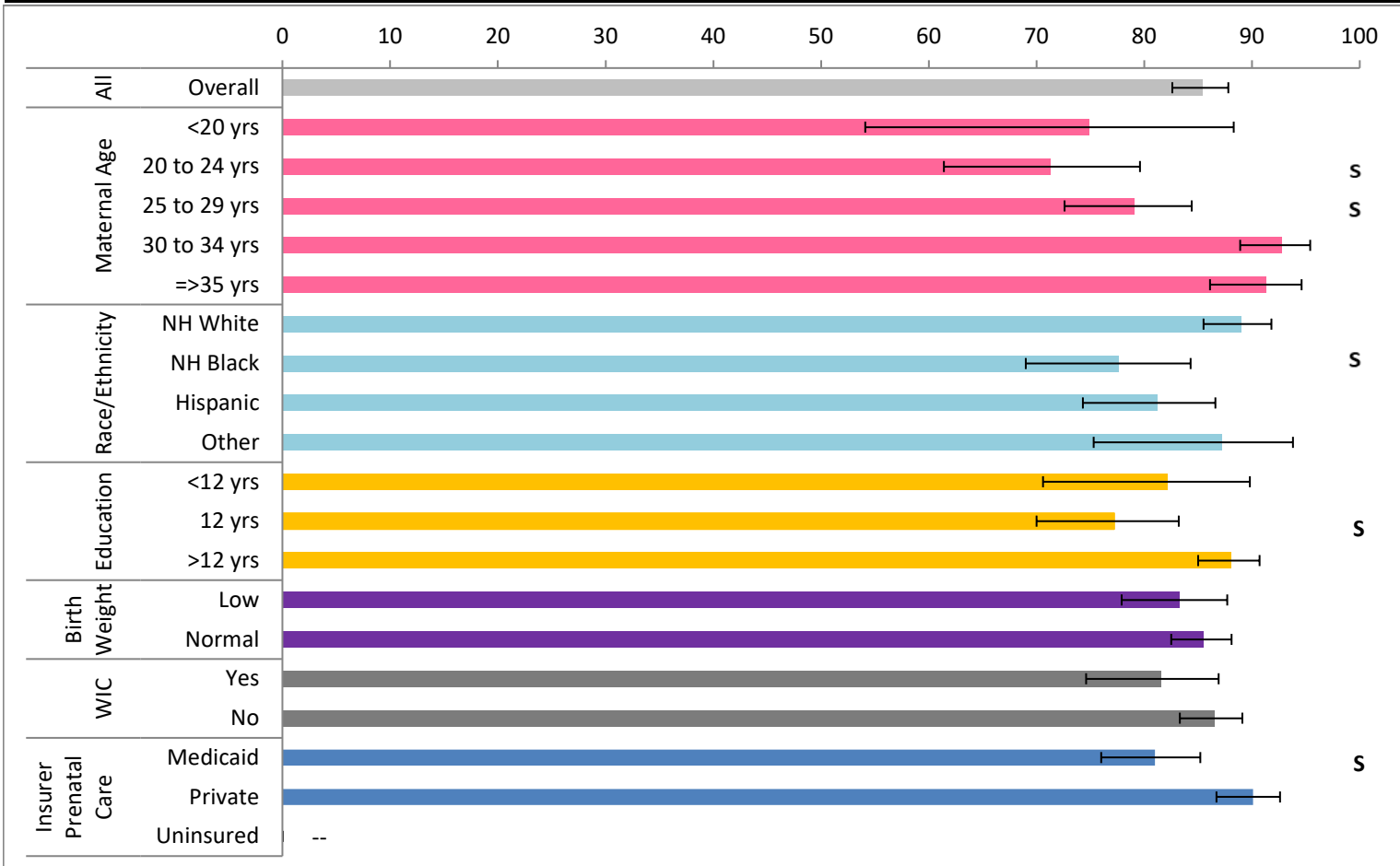
³Respondents= The total number who responded to the survey question

⁴Estimated Population Affected = Estimated number of Illinois mothers/infants with characteristic or condition

Influenza Vaccination Offer

Percentage (%) of recent mothers in Illinois who reported being offered an influenza vaccination

Survey Question 27: During the 12 months before the delivery of your new baby, did a doctor, nurse, or other health care worker offer you a flu shot or tell you to get one? Response: Yes



		Percentage ¹	95% CI ²		Respondents ³	Estimated Population Affected ⁴
All	Overall	85.4	82.6	87.8	933	101,690
Maternal Age	<20 yrs	74.9	54.1	88.3	31	3,133
	20 to 24 yrs	71.3	61.4	79.6	115	11,953
	25 to 29 yrs	79.1	72.6	84.4	227	23,659
	30 to 34 yrs	92.8	88.9	95.4	338	38,134
	=>35 yrs	91.3	86.1	94.6	222	24,812
Race/Ethnicity	NH White	89.0	85.5	91.8	497	57,093
	NH Black	77.6	69.0	84.3	165	15,050
	Hispanic	81.2	74.3	86.6	200	22,150
	Other	87.2	75.3	93.8	64	6,382
Education	<12 yrs	82.2	70.6	89.8	74	8,517
	12 yrs	77.2	70.0	83.2	207	20,863
	>12 yrs	88.1	85.0	90.7	637	70,305
Birth Weight	Low	83.3	77.9	87.7	275	8,077
	Normal	85.5	82.5	88.1	658	93,613
WIC	Yes	81.6	74.6	86.9	202	22,297
	No	86.5	83.3	89.1	718	77,986
Insurer Prenatal Care	Medicaid	81.0	76.0	85.2	357	38,790
	Private	90.1	86.7	92.6	518	57,808
	Uninsured	--	--	--	--	--

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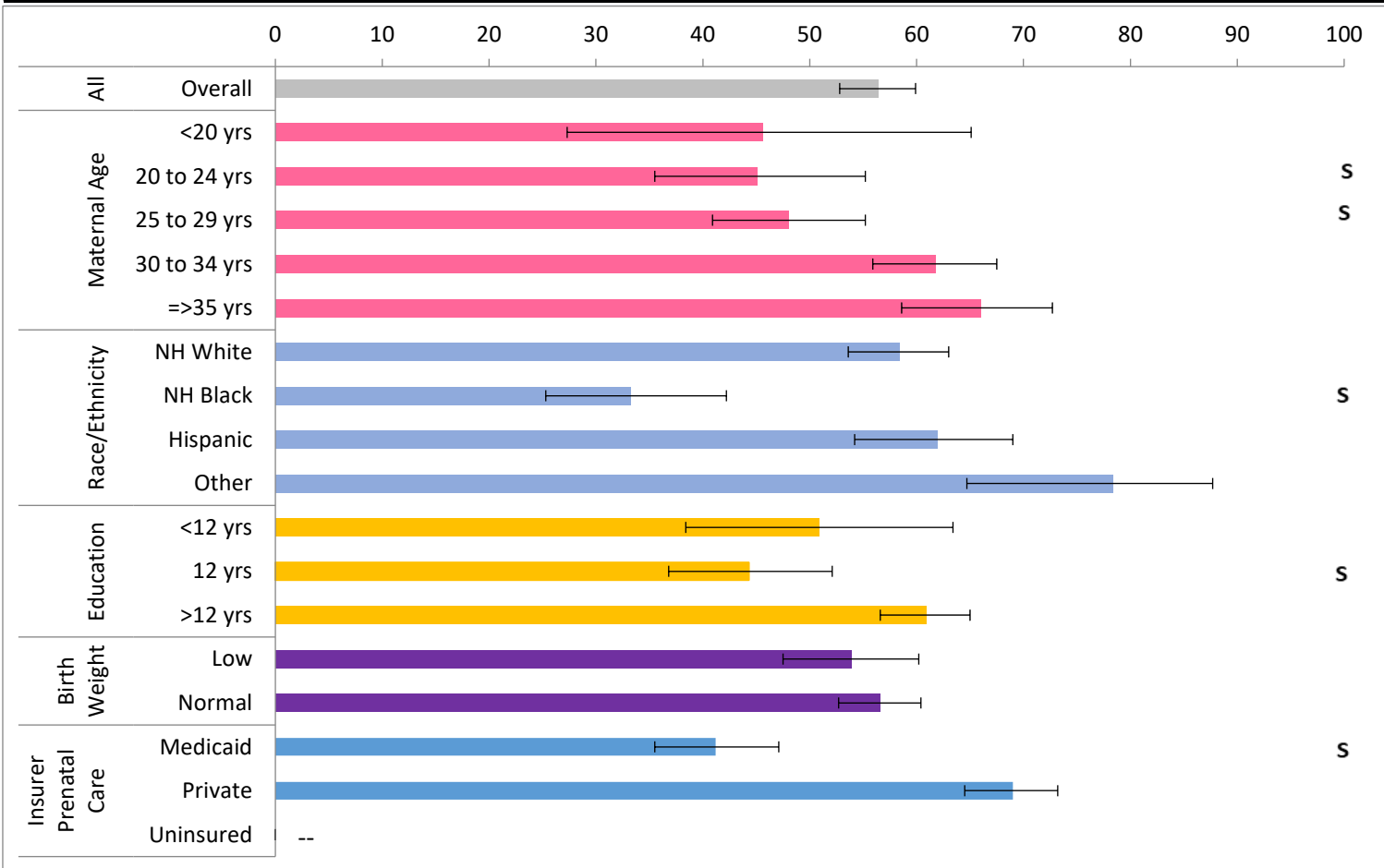
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During Pregnancy **Table 3** **2022 Phase 8 Illinois PRAMS Data**
Immunizations
Percentage (%) of recent mothers in Illinois who reported receiving an influenza vaccination

Survey Question 28: During the 12 months before the delivery of your new baby, did you get a flu shot? Responses: 'Yes, before my pregnancy' and 'Yes, during my pregnancy' are combined and shown in chart



		Percentage ¹	95% CI ²		Respondents ³	Estimated Population Affected ⁴
All	Overall	56.4	52.8	59.9	937	67,406
Maternal Age	<20 yrs	45.6	27.3	65.1	31	1,907
	20 to 24 yrs	45.1	35.5	55.2	116	7,579
	25 to 29 yrs	48.0	40.9	55.2	228	14,460
	30 to 34 yrs	61.8	55.9	67.5	340	25,524
	=>35 yrs	66.0	58.6	72.7	222	17,936
Race/Ethnicity	NH White	58.4	53.6	63.0	499	37,631
	NH Black	33.2	25.3	42.2	165	6,442
	Hispanic	61.9	54.2	69.0	201	16,895
	Other	78.4	64.7	87.7	65	5,761
Education	<12 yrs	50.9	38.4	63.4	74	5,280
	12 yrs	44.3	36.8	52.1	208	12,058
	>12 yrs	60.9	56.6	65.0	640	48,669
Birth Weight	Low	53.9	47.5	60.2	277	5,258
	Normal	56.6	52.7	60.4	660	62,148
Insurer Prenatal Care	Medicaid	41.2	35.5	47.1	358	19,801
	Private	69.0	64.5	73.2	521	44,430
	Uninsured	--	--	--	--	--
Marital Status	Married	66.6	62.3	70.6	582	47,392
	Other	41.4	35.7	47.3	355	20,014

¹Percentage = Weighted percentage

²CI = Confidence interval lower/upper bounds

-- Indicates denominator <30 respondents or numerator <6 respondents

³Respondents = The total number who responded to the survey question

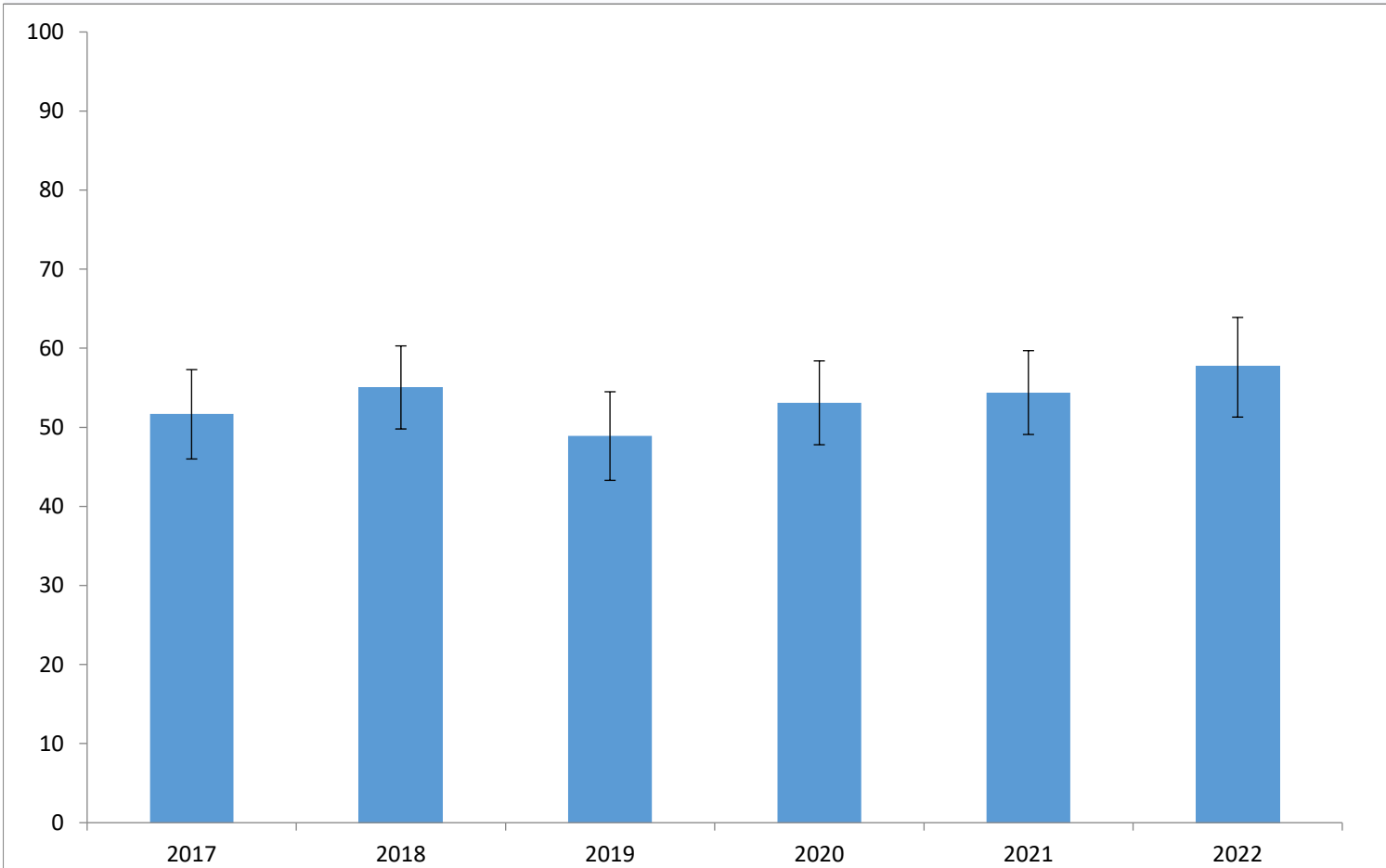
⁴Estimated Population Affected = Estimated number of Illinois mothers/infants with characteristic or condition

Health Behavior Trends

Percentage (%) of recent mothers in Illinois who reported that during a health care visit a health care worker talked to them about getting vaccinated in preparation for a pregnancy

Among women reporting that before pregnancy a health care worker talked to them about preparing for pregnancy

Survey Question 11: Before you got pregnant with your new baby, did a doctor, nurse, or other health care worker talk with you about any of the things listed below about preparing for a pregnancy? 11a. Getting my vaccines updated before pregnancy. Response: Yes



	Percentage ¹	95% CI ²		Respondents ³	Estimated Population Affected ⁴
2017	51.7	46.0	57.3	366	20,988
2018	55.1	49.8	60.3	406	23,135
2019	48.9	43.3	54.5	367	18,417
2020	53.1	47.8	58.4	409	21,809
2021	54.4	48.3	60.3	343	19,304
2022	57.8	51.3	63.9	280	20,419

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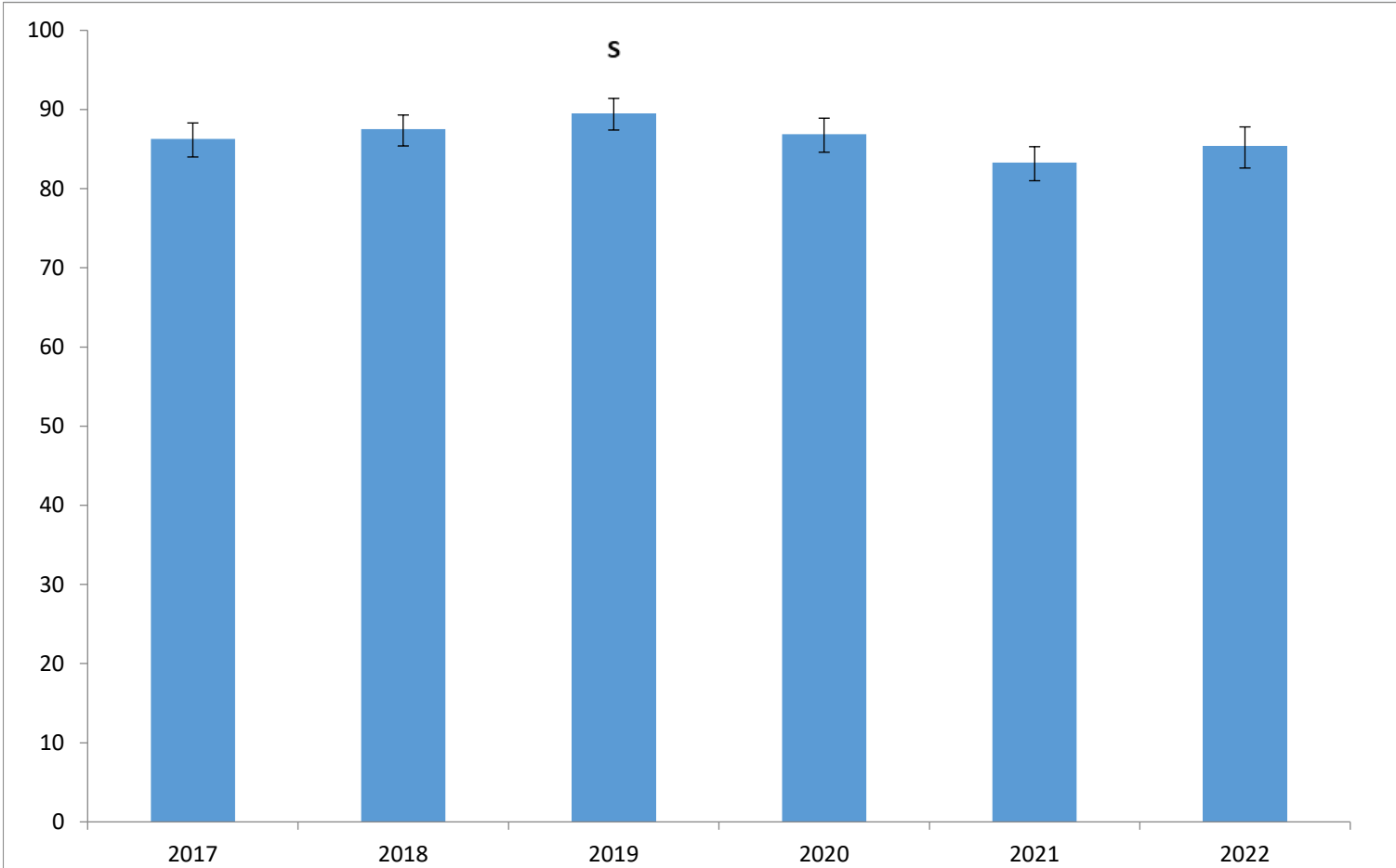
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S = Statistically significant based on non-overlapping 95% confidence intervals

Influenza Vaccination Offer Trend

Percentage (%) of recent mothers in Illinois who reported being offered an influenza vaccination

Survey Question 27: During the 12 months before the delivery of your new baby, did a doctor, nurse, or other health care worker offer you a flu shot or tell you to get one? Response: Yes



	Percentage ¹	95% CI ²		Respondents ³	Estimated Population Affected ⁴
2017	86.3	84.0	88.3	1,203	120,371
2018	87.5	85.4	89.3	1,295	118,587
2019	89.5	87.4	91.4	1,211	116,331
2020	86.9	84.6	88.9	1,194	108,333
2021	83.3	80.5	85.7	1,106	102,797
2022	85.4	82.6	87.8	933	101,690

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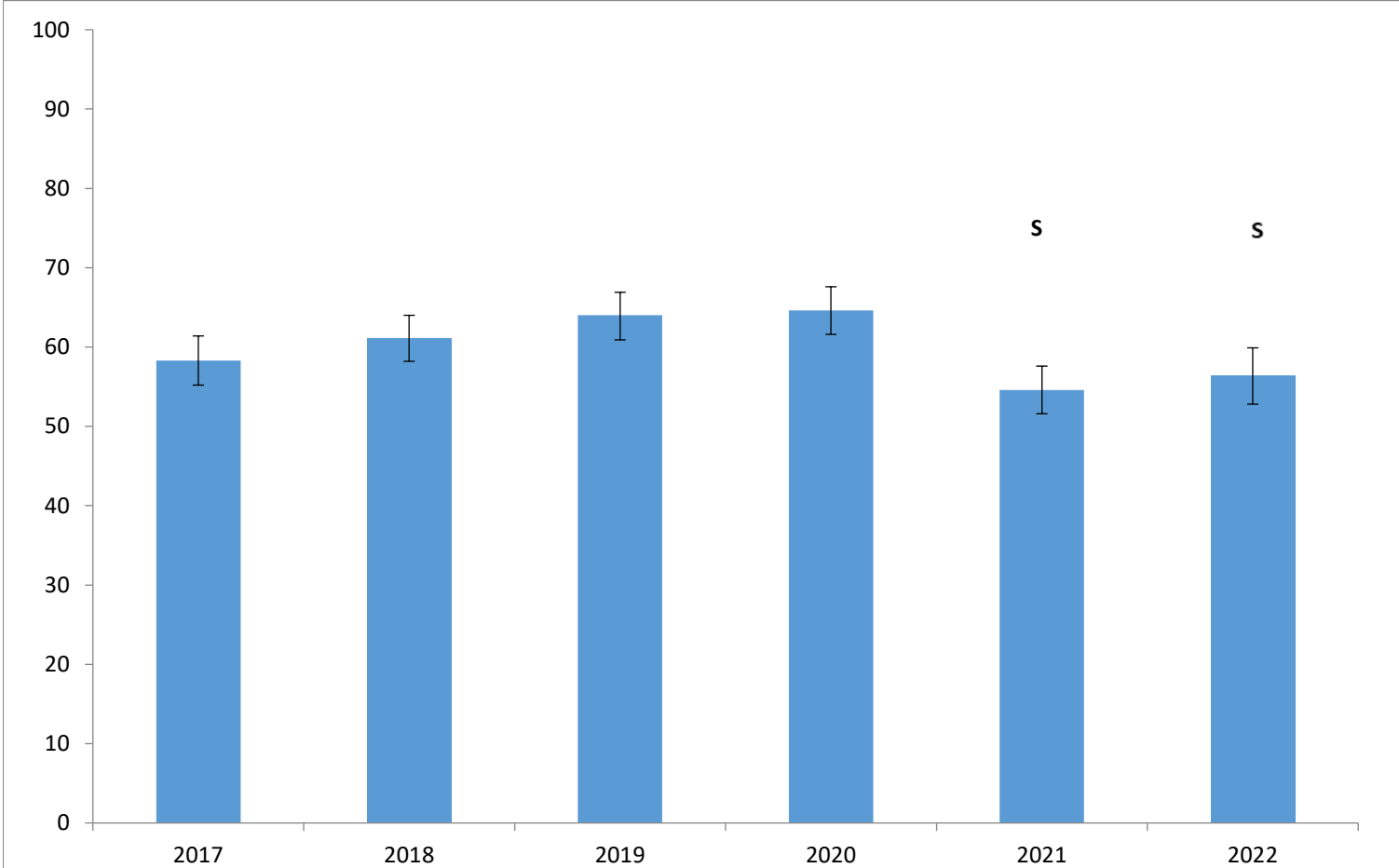
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Influenza Vaccination Trend

Percentage (%) of recent mothers in Illinois who reported receiving an influenza vaccination.

Survey Question 28: During the 12 months before the delivery of your new baby, did you get a flu shot? Responses: 'Yes, before my pregnancy' and 'Yes, during my pregnancy' are combined and shown in chart.



	Percentage ¹	95% CI ²		Respondents ³	Estimated Population Affected ⁴
2017	58.3	55.2	61.4	1,213	81,740
2018	61.1	58.2	64.0	1,292	82,611
2019	64.0	60.9	66.9	1,221	83,643
2020	64.6	61.6	67.6	1,198	81,180
2021	54.6	51.3	57.9	1,109	67,471
2022	56.4	52.8	59.9	937	67,406

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